INTRODUCTION

Athletic careers are filled with fluctuations of fortune that allow athletes to experience both the thrill of victory and the agony of defeat within their own career. Given the uncertainty of outcome that is the nature of sporting events, what leads individuals to produce dramatically different responses to failure? We all experience failure at one time or another. Indeed, this experience is endemic within sport. Yet, why do some people possess the ability to bounce back from adversity while others simply give up or drop out? It is clear that the consequences of failure can be either motivating or disruptive depending on how one explains and subsequently deals with that failure **(**Mummery et al. 2004**).**

Sport specialists agree that athletic performance is influenced not only by physical skills but also by psychological ones. In order to achieve peak performance the athletes need a "total package" including physical skills, psychological skills, fitness and injury prevention (Gould and Eklund, 1993). Athletic performance could also be influenced by team or coaching variables and social support issues. An essential part of research in sport psychology is the assessment of athletes' coping skills in various situations. Although previous research in this area focused primarily on the differences in coping skill and cognitive coping strategies, the recent studies examine the relationship between coping skill which is behavioural and cognitive coping strategies that is emotional. Further this also highlights on various coping skill which athletes of both gender used more and the difference between them.

Researchers like Lazarus and Folkman (1984) contend that coping is conscious psychological and physical efforts to improve ones resourcefulness in dealing with stressful events. The current literature in coping also suggests the existence of gender differences in coping responses (Crocker and Graham et.al, 1989).Researchers hold that sex role stereotypes and role expectations predispose male and female athletes to respond difficulty to stress. Few studies indicated that female athletes are more likely to use emotion focused coping and avoidance coping particularly in response to uncontrollable stressors(Miller &Kirch,1987;Ptack,Smith&Zanas,1992),whereas male athletes are more likely to use problem solving and approach coping in dealing with stress(Carver et.al;1989) A study conducted on marathon runners showed clear performance for the associative strategy while running, however they were more inclined to disassociate or use both strategies while in

training runs(Masters 1989). Anshel et al. (2001) in one of their study confirmed that cognitive appraisals of stressful events influence subsequent use of coping strategies.

STATEMENT OF THE PROBLEM

The purpose of the present study was to analyze the relationship between athletic coping skill and cognitive coping strategies among national level athletes of various sports.

The subordinate purpose of the study was to find out:

i) Coping skill and cognitive coping strategies between female and male athletes belonging to various sports .
ii) Coping skill which is a behavioral tool, is used by individuals to offset or overcome adversity, disadvantage, or disability without correcting or eliminating the underlying condition for athletes at national level for both gender from different sports.
iii) Nine different cognitive coping strategies, of which, independent of each other referring to thoughts in which one hold other people responsible for what happened to them are to be assessed for athletes at national level of both gender from different sports.

LIMITATIONS

- Questionnaire research has its limitations, any bias that might have entered into the subject on this account may be considered as a limitation to this study.
- Lifestyle of the subject is beyond the control of the researcher. Though an effort was made to control the groups, any other factors that might have brought an influence is another limitation in the study.
- Coping skill and cognitive coping strategies differs from one to the other individual; that may be considered as another limitation of this study.

- The training and coaching style of coaches of various specialities is different; that might have an influence on the answers of the athletes, which may be considered as another limitation of the study.

DELIMITATIONS

This study was delimited to 300 athletes in the age group of 16-32years belonging to the sport discipline of Track and Field, Basketball, Volleyball, Football and Cricket.

- Further the study was delimited to Athletic Coping Skill Inventory and Cognitive Emotion Regulation Questionnaire.

- The data collected for the study was at various times for various sport groups at various places of India.

HYPOTHESIS

On the basis of the literature gone through, research finding and the scholar's understandings of the problem, the following hypotheses were formulated.

HYPOTHESIS$_1$: There would be positive relationship in coping skill and cognitive coping strategies of the athletes of both genders belonging to various sports.

HYPOTHESIS$_2$: There would be significant differences in the coping skill and cognitive coping strategies between female and male athletes belonging to various sports.

HYPOTHESIS$_3$: There would be significant differences in the coping skill and cognitive coping strategies of male athletes of various sport groups.

HYPOTHESIS$_4$: There would be significant differences in the coping skill and cognitive coping strategies of female athletes of various sport groups.

METHODOLOGY

For the purpose of the study 300 athletes in the age group of 16-32 years, from the sport discipline of track and field, football, basketball, volleyball and cricket, having the playing experience of 3-12 years of inter-state and above level competition were selected as subjects. Each discipline consisted of 60 athletes inclusive of 30 males and 30 females. The mean and SD of age in case of female athletes for the total sample was 19.43± 2.36, whereas for the male athletes it was 21.93 ± 3.17 years. For total subjects the mean and SD is 20.68± 3.03.

Selection of Test Items

The first section was **demographic information** sheet consisting of several questions used to describe the sample's age, gender and number of years participating in sport.

The test items selected for the research were:

(i) Athletic coping style inventory (ACSI-28; Smith, Schutz, Smoll, & Ptacek, 1995)

(ii) Cognitive Emotion Regulation Questionnaire (CERQ. Nadia Garnefski & Vivian Kraaij)

Special care was taken while collecting the data from the samples as these were the National level athletes and who were in preparation for higher level competition. Also those who were willing to fill the questionnaire were considered because many of them thought it may affect them and did not agree to fill the questionnaire.

Athletic Coping Style Inventory- [ACSI, Appendix-B]

Data was collected in person by the researcher from national level athletes of various sport groups by administering selected questionnaires.

The ACSI contains 28 items describing seven sport-specific subscales:

i. Coping with adversity
ii. Peaking under pressure
iii. Goal setting/mental preparation
iv. Concentration
v. Freedom from worry
vi. Confidence and achievement motivation
vii. Coachability

The CERQ is a self-report questionnaire consisting of 36 items, measures a total of nine different cognitive coping strategies:

i. Self blame
ii. Acceptance
iii. Ruminating
iv. Positive refocusing
v. Refocusing on planning
vi. Positive reappraisal
vii. Putting in to perspective
viii. Catastrophizing
ix. Other blame

ANALYSIS OF DATA AND RESULTS OF THE STUDY

The data thus collected were subjected to statistical analysis of descriptive statistics and percentile scores for the total sample in demographic aspect. To compare the coping skill and cognitive coping strategies female and male athletes multivariate and univariate analysis of variance was conducted and the level of significance was tested at 0.05 level.

To test the hypothesis Pearson's product moment cor-relation was applied and tested for significance at 0.05 level.

Further, one-way analysis of variance was computed among sports groups of both gender, where the f ratio was found significant, LSD post-hoc test was applied to find out the differences among the sub scores of that variable.

Within the limits and limitations of the present study, the analysis was done based on the purpose of the study and hypothesis stated, the following findings were arrived at:

In the demographic aspect of age and experience, the mean and SD of age in case of female and male athletes for the total sample was **19.43± 2.36,** and **21.93 ± 3.17** years. The mean and SD of playing experience in case of female and male athletes for the total sample was 6.18 ± 0.11, and 4.74 ± 0. 11 years

The frequency distribution clearly indicates that maximum numbers of female athletes were having the participation experience between 5-7 years which is approximately 71.3%. In case of male athletes the participation was between 4-6 Years which is approximately 74.0%.

In coping with adversity the mean score for women and men is 7.57±1.80 and 8.82 ± 1.70. In peaking under pressure the score for women and men is 7.81±1.81 and 8.78 ± 1.92. In the total score for goal setting and concentration for women and men it is 7.52±1.95 & 8.93±1.97 and 8.03 + 2.14 & 8.23 + 2.28. The mean and SD scores in freedom from worry the total score for women is 7.59 ± 2.38 and for men it is 7.79 ± 2.61. In case of confidence the mean scores for women and men are 7.80 ± 2.39 and 8.97 ± 2. 43 respectively. For self blame the total score for women is 10.75±3.35 and for men it is 11.18±3.13. In case of acceptance the scores are 13.44±3.64 and 13.56+3.20 for women and men respectively.

The mean and SD scores in ruminating and positive refocusing the total score for women and men it is 11.03±3.33 and 12.68±3.17. In case of positive refocusing the scores are 12.90±3.805 and 13.96+3.62 for women and men respectively.

The total score of refocusing on planning for women and for men it is is 15.97±3.39 and 15.50±3.47. In case of positive reappraisal the scores are 16.05+3.39 and 15.26+3.71 for women and men respectively.

The total score of putting in to perspective for women are 13.52 ± 3.35 and for men it is 13.01±4.18. In case of catastrophising the scores are 10.75±3.17 and 12.37±3.02 for women and men respectively. In case of other blame for women the score is 8.12±3.42 and for men it is 9.08±3.07.

The mean and SD scores of sum of ACS and CCS for women & men are 53.33 ± 7.53 & 58.65 ± 8.88. and 112.54 ± 15. 58 & 116.61 ± 18.97 respectively.

A bivariate correlation was calculated between each subscale of the ACSI and CERQ of female and male athletes. The significant positive coefficient of correlation are discussed below.

So far as female athletes are concerned positive correlations were seen between peaking under pressure and refocusing on planning; coping with adversity and positive reappraisal ; coping with adversity and putting into perspective ; goal setting and ruminating ; goal setting and positive refocusing ; goal setting and refocusing on planning ; goal setting and positive reappraisal ; goal setting and putting into perspective ; goal setting and catastrophising ; concentration and positive refocusing ; concentration and refocusing on planning ; concentration and putting into perspective; freedom from worry and refocusing on planning ; freedom from worry and positive reappraisal ;confidence and refocusing on planning ; confidence and positive reappraisal . At the end in the coping skill of coachability and self blame.

For the male athletes positive correlations were seen between peaking under pressure and acceptance ; peaking under pressure and putting into perspective ; peaking under pressure and other blame ; coping with adversity and self blame ; coping with adversity and acceptance; coping with adversity and ruminating ; coping with adversity and positive refocusing ; coping with adversity and putting in to perspective ; coping with adversity and catastrophising ; goal setting and acceptance ; goal setting and positive refocusing ; goal setting and refocusing on planning ; goal setting and positive reappraisal ; goal setting and putting into perspective; concentration and acceptance; concentration and positive refocusing ; concentration and refocusing on planning ; concentration and positive appraisal ; concentration and putting into perspective; freedom from worry and ruminating ; freedom

from worry and refocusing positive refocusing ; Freedom from worry and refocusing on planning ; freedom from worry and positive reappraisal ; freedom from worry and putting into perspective ; freedom from worry and catastrophising ;confidence and putting into perspective is ; At the end in the coping skill of coachability and catastrophing .

It can be inferred that in coping with adversity, peaking under pressure, goal setting and confidence, the obtained f value of 41.43, 20.67, 39.58 and 18.11 respectively are greater than the tabulated value of **3.87 at (**1,294 df) at 0.05 level of significance. Pair wise comparison showed statistically significant differences between male and female athletes in the factors of coping with adversity (MD=**1.25)**, peaking under pressure (MD=**97)**, goal setting (MD=**1.41)** and confidence (MD=**1.17)**. In all these variables of coping skills it was seen that the male athletes had better coping skill in comparison to female athletes.

In concentration, freedom from worry and coachability there is no significant difference exists between both the groups of athletes.

In various factors of cognitive coping strategies between genders, it was inferred that in ruminating, positive refocusing , catastrophising and other blame significant difference exists among the two genders as the calculated f value 21.29, 6.50, 23.83 and 6.54 respectively was found greater than the tabulated value of **3.87 at (**1,294 df) at 0.05 level of significance.

In the factors of self blame, acceptance, refocusing on planning, positive reappraisal, and putting in to perspective there is no significant difference exists among the two genders. Where ever significant difference between the female & male athletes were found pair-wise comparison was made .

Pair wise comparison showed statistically significant exists between female and male in factors of ruminating (MD= -1.65), positive refocusing(MD = -1.06), catastrophising (MD = - 1.62) and other blame(MD = -.96).

It is revealed that male athletes involved themselves more in ruminating, referring to thinking about the feelings and thoughts associated with the negative event in comparison to female athletes . In positive reinterpretation in terms of personal growth male athletes were found to be giving more importance to the event than that of their female counter part. Catastrophising, refers to constantly recurring thoughts about how terrible the event was and blaming others, referring to thoughts in which you hold other people responsible for what

happened to you, it was observed that the male athletes were tend to put the blame on others in comparison to female athletes.

In blaming yourself, referring to thoughts in which you hold yourself responsible for what happened to you, accepting, referring to thoughts where you resign yourself to what has taken place, concentrating on planning, or thinking what steps must be taken to cope with the event, positive reinterpretation, or giving positive significance to the event in terms of personal growth, and putting into perspective, or saying that worse things happen in the world, no difference was observed between both the gender.

Finally the third part of the study was to analyse the athletic coping skill and cognitive coping strategy of female and male athletes separately according to their sports .One way analysis of variance was applied .

Significant difference was found in the factors of coping with adversity ($f = 7.45$, $p < 0.05$), freedom from worry ($f = 3.96$, $p < 0.05$) confidence ($f = 5.12$, $p < 0.05$) , and coachability ($f = 2.43$, $p < 0.05$).

There exists a statistically significant difference in coping with adversity score of cricket players with foot ball players (MD=-1.07, $p<0.05$) and athletes (MD=-1.63, $p<0.05$) ; basket ball players with football players (MD=1.50, $p<0.05$), volleyball players (MD=1.03, $p<0.05$) and athletes (MD=-2.07, $p<0.05$) ; volleyball players with athletes (MD=- .90, $p<0.05$).

In the variable of freedom from worry athletes were significantly different from cricketers (MD = 1.97, $p < 0.05$), foot ball players (MD = 1.60, $p < 0.05$), Volley ball players (MD = 2.07, $p < 0.05$) and basket ball players (MD=90 $p < 0.05$).

In confidence there was a significant difference found between football players and volleyball players (MD=2.10 $p < 0.05$), football players and basketball players (MD= 2.07 $p < 0.05$), volleyball players and athletes(MD=1.63 $p < 0.05$), basketball player and athletes(MD=1.60 $p < 0.05$).

Significant difference was seen in the sub variables of cognitive coping strategies of the women athletes belonging to various sport groups of the present sample. Significant difference was found in the factors of acceptance ($f = 12.53$, $p < 0.05$), ruminating ($f = 3.22$, $p < 0.05$) refocusing on planning ($f = 6.31$, $p < 0.05$), and catastrophising ($f = 5.83$, $p < 0.05$) .

In the factors of cognitive strategies, statistically significant difference in acceptance score of basketball players with football players (MD =2.93, $p < 0.05$), volleyball players (MD =1.93, $p < 0.05$), and athletes (MD = 2.33$p < 0.05$); athletes with cricketers (MD =-3.93, $p < 0.05$), volleyball players (MD=4.26667 $p < 0.05$) and football (MD= 5.26, $p< 0.05$).

In ruminating there was a difference found between cricketers and basketball players(MD=1.90 ,$p < 0.05$**)**; football players and basketball players (MD=2.83, $p < 0.05$**)**; football and athletes (MD=1.90 $p < 0.05$**)**.

In refocusing on planning, athletes were significantly different from cricket (MD=2.26 $p < 0.05$), football (MD= 2.40 $p < 0.05$**)**, and basketball (MD= 1.73 $p < 0.05$**)**.

In positive reappraisal there was a difference between cricketers and athletes (MD= 2.63 $p < 0.05$); cricketer and volleyball players (MD= 1.66 $p < 0.05$).); football players and volleyball players (MD= 2.70, $p < 0.05$); football players and basketball players (MD= 2.53 $p < 0.05$) and football players and athletes (MD= 2.40 $p < 0.05$).

In catastrophising there was significant difference evident between cricketers and basketball players (MD=2.16 $p < 0.05$); football players and basketball players (MD=-3.60, $p < 0.05$); football players and volleyball players (MD=2.10 $p < 0.05$); football players and athletes (MD=-2.1 $p < 0.05$) .

Finally, significant difference was seen in the sub variables of athletic coping skill status of the men athletes belonging to various sport groups of the present sample. Significant difference was found in the factors of peaking under pressure ($f = 4.56$, $p < 0.05$), concentration ($f= 3.11$, $p < 0.05$), freedom from worry($f = 9.47$, $p < 0.05$), and coachability ($f = 6.10$, $p < 0.05$).

LSD post-hoc test was carried out for pair-wise comparisons. It was observed that there exists a statistically significant difference in peaking under pressure score of cricket players with athletes (MD=-1.17, $p<0.05$); football players with athletes (MD=-1.63 $p<0.05$); football players with Basket ball players (MD=1.50, $p<0.05$); volleyball players with basketball players (MD=1.20, $p<0.05$); and volleyball players with Athletes (MD=--1.53, $p<0.05$).

In concentration, there was a significant difference found between cricketers and football players (MD=1.4. $p<0.05$); cricketers and athletes (MD=1.27, $p<0.05$); football

players and basketball players (MD=-2.63, p<0.05); basketball players with athletes (MD=-1.4, p<0.05).

In the variable of freedom from worry, a significant difference was there in the score of cricketers with basketball players (MD=1.50, p<0.05) and athletes(MD=-2.13, p<0.05); football players with basketball players (MD=--1.23, p<0.05) and athletes (MD=-1.43, p<0.05); volleyball players with basketball players (MD=--1.53, p<0.05) and athletes(MD=-2.27, p<0.05) and basketball players with athletes(MD=-3.63, p<0.05).

There was a significant difference found in the scores of coachability of cricketers with football players (MD=-1.23, p<0.05); basketball players with cricketers (MD=--1.40, p<0.05); football players (MD=- (-2.63, p<0.05); volleyball players (MD=--1.53<0.05) and athletes (MD=-2.00 p<0.05)

Significant difference was seen in the sub variables of cognitive coping strategies of the men athletes belonging to various sport groups of the present sample. Significant difference was found in the factors of acceptance (f = 3. 68, p < 0.05), ruminating (f = 9. 58, p < 0.05), positive refocusing (f = 8. 09, p < 0.05), refocusing on planning (f = 7. 05, p < 0.05), positive reappraisal(f = 3. 71, p < 0.05), putting into perspective (f = 14. 78, p < 0.05) and catastrophising (f = 11. 32, p < 0.05).

From the test of multiple comparisons it is observed that there exists a significant difference in score of acceptance of athletes with cricketers (MD=-3.93p<005), footballers (MD=-5.27 p<005), volleyball players (MD=-4.27 p<005), and basketball players (MD=-2.33 p<005); basketball players with football players (MD=-2.93 p<005), and volleyball players (MD=-1.93 p<005).

There was a significant difference found in the score of ruminating between cricketers and basketball players (MD=-1.90 p<005), football players and basketball players (MD=2.83 p<005), football players and athletes (MD=--1.90 p<005).

It is also observed that there exists a statistically significant difference in score of refocusing on planning between cricketers and athletes (MD =2.27 p<005), football players and athletes (MD =2.4 p<005), basketball players and athletes (MD=2.40 p<005).

A statistically significant difference was also evident in positive reappraisal between cricket and volleyball players (MD=1.67 p<005), cricketers and athletes (MD=2.63 p<005),

football players and volleyball players (MD=2.70 p<005), football players and athletes (MD=3.67 p<005).

In catastrophising scores a significant difference was found between cricketers and basketball players (MD=2.17 p<005); football players and volleyball players (MD=2.30 p<005); football players and basketball players (MD=3.60 p<005); football players and athletes(MD=2.10 p<005).

There is a positive relationship between the two. In addition there is gender wise difference in many factors of ASC and CCS. Further there is difference in the coping skill and strategies of one sport to other for both male and female athletes. There are number of coping skill where no difference is seen between both the genders signifying the similarity in coping process

The present finding with regard to athletic coping skill and cognitive coping strategies of both the groups of athletes (female and male) are quite thought provoking and call for further investigation in this regard.

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